

Message

From: "Rebecca S Shaftel" ["Rebecca S Shaftel" <rsshafte@uaa.alaska.edu>]
Sent: 10/20/2011 11:04:01 PM
To: dchambers@csp2.org
CC: Phil North/R10/USEPA/US@EPA
Subject: Pebble Tailings Dam Volumes
Attachments: rsshafte@uaa.alaska.edu

Hi Dave,

I am working with Phil North on EPA's watershed assessment for Bristol Bay. We have been using GIS to estimate volumes for tailings ponds near the mine site that could hold the published tons of ore (pg. 280 in the 2/15/11 report by Ghaffari et al.). The volume calculations were based on hand digitized polygons and the ASTER DEM. We georeferenced the location for TSF G from Pebble's figures and also digitized three other possible tailings pond locations. In order to convert to tons, we used the value of 1.36 tons/m³ based on a USGS publication (Porter and Bleiwas OFR 03-143).

Currently, we have estimated the total tons of ore held in TSF G at 1.5M ktons, which is much lower than Pebble's published 2.0M ktons. I originally contacted Marcus Geist at TNC to see if he had conducted a similar exercise and he suggested I contact you. Do you have any suggestions given our methodology? It would be especially helpful if you might direct us to a better estimate for the ore density from one of Pebble's published documents.

Thanks for your help. Please feel free to call me if you'd like to discuss over the phone.

Becky

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